Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Electronic Supplementary Information

Fabrication of the narrow size nano curcuminoids emulsion by combining phase inversion temperature and ultrasonication: preparation and bioactivity

Quang- Hieu Tran[a*], Thi Thanh- Ho Thuy[b], Thanh-Tu Nguyen[b]

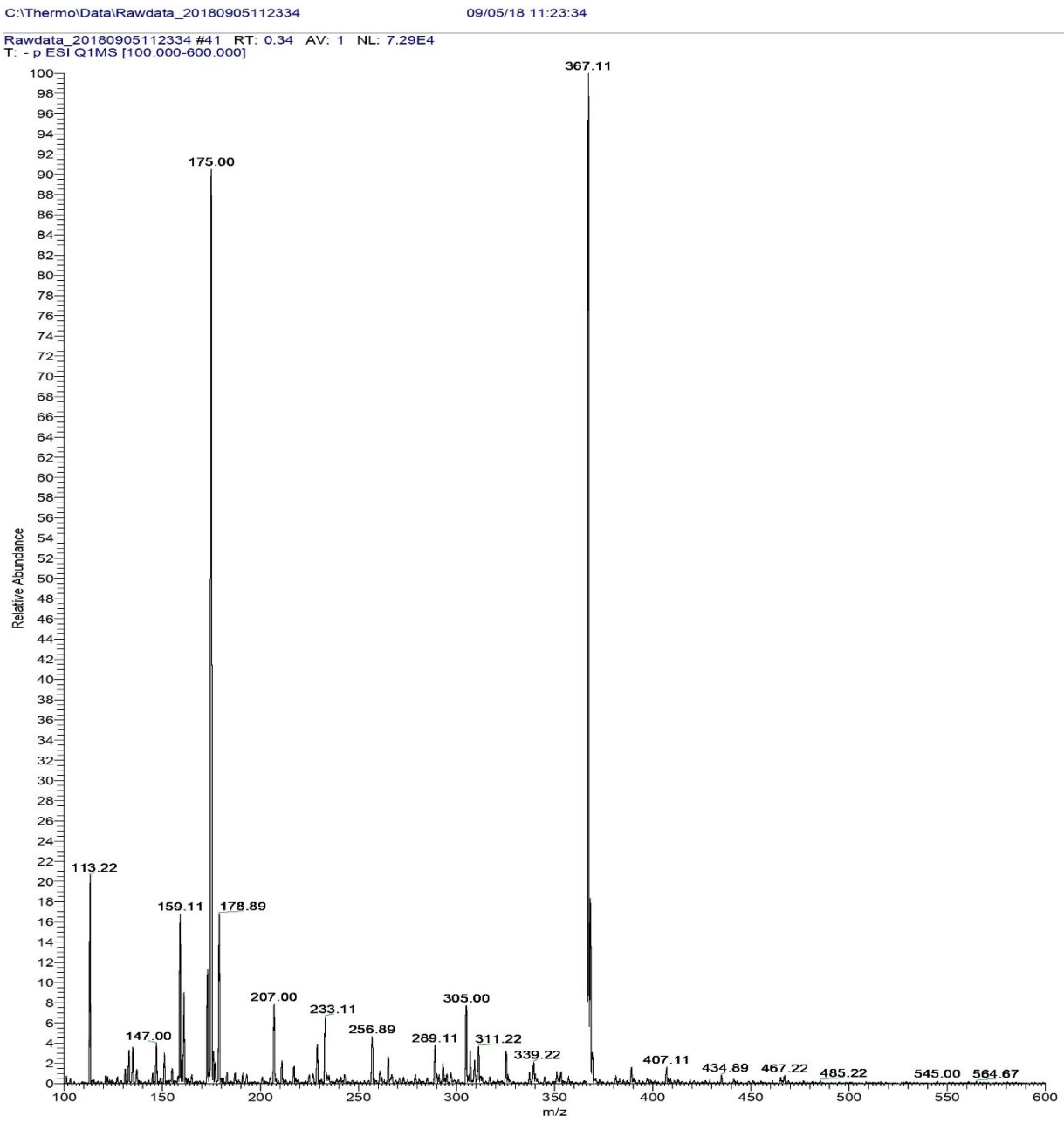

Fig S1. MS spectra of curcuminoids extracted from turmeric, Curcumin: (Cur), m/z = 367.11, $C_{21}H_{20}O_6$, Demethoxycurcumin (DMC): $C_{20}H_{18}O_5$, m/z = 339.22 and Bisdemethoxycurcumin (BDMC): $C_{19}H_{16}O_4$, m/z = 308.25.

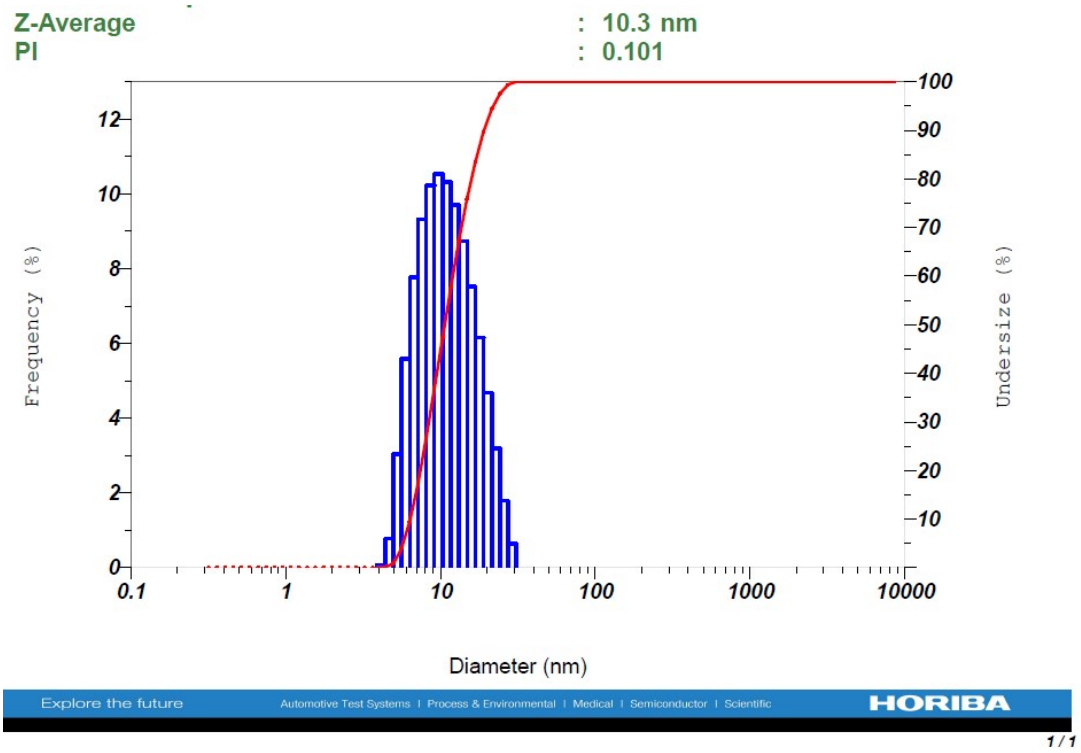

Fig S2. Size distribution of NCE-03

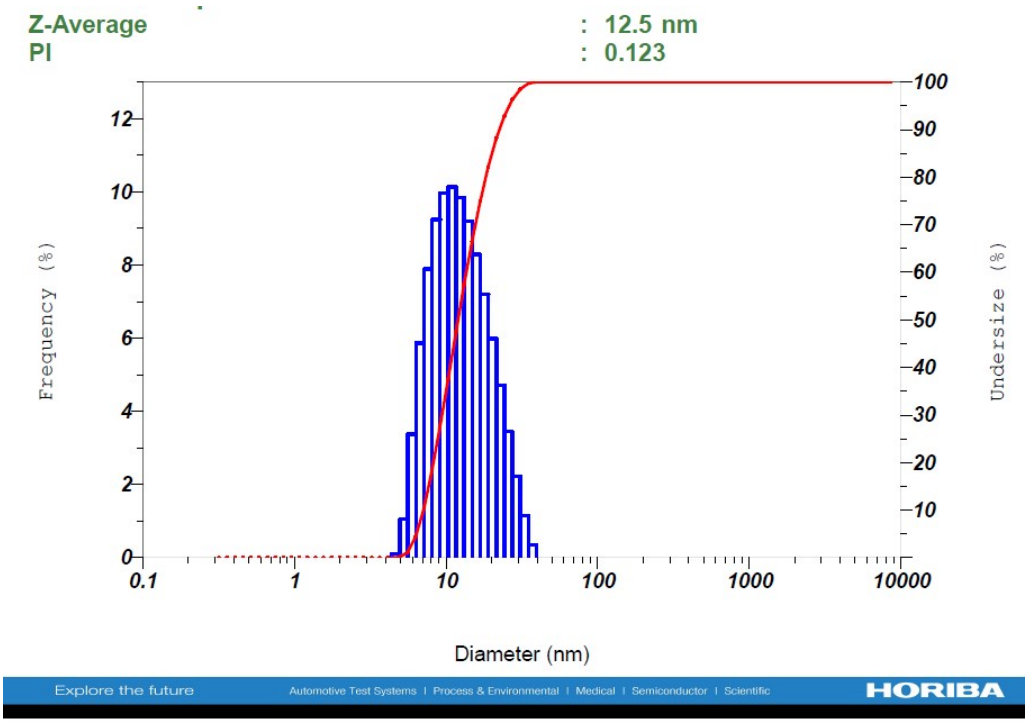

Fig S3. Size distribution of NCE-03 after 30 days of storage

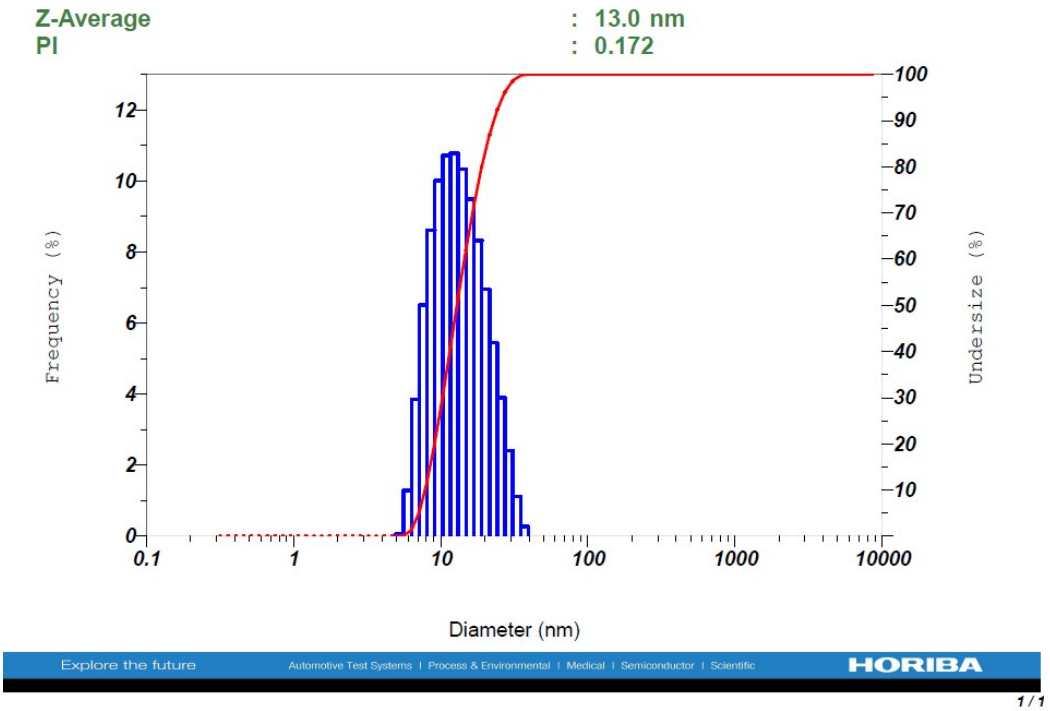

Fig S4. Size distribution of NCE-03 after 60 days of storage

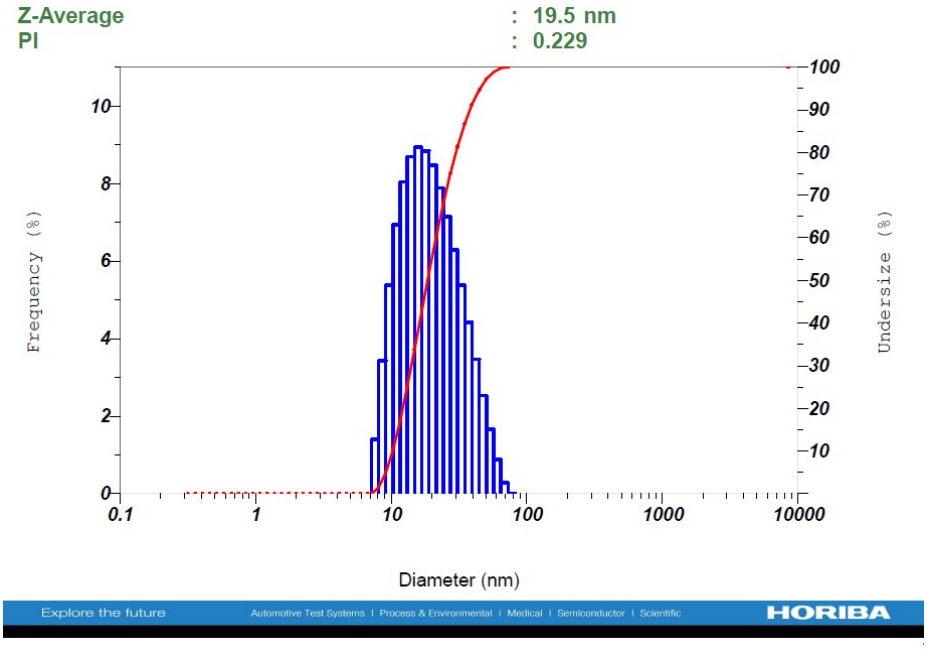

Fig S5. Size distribution of NCE-01

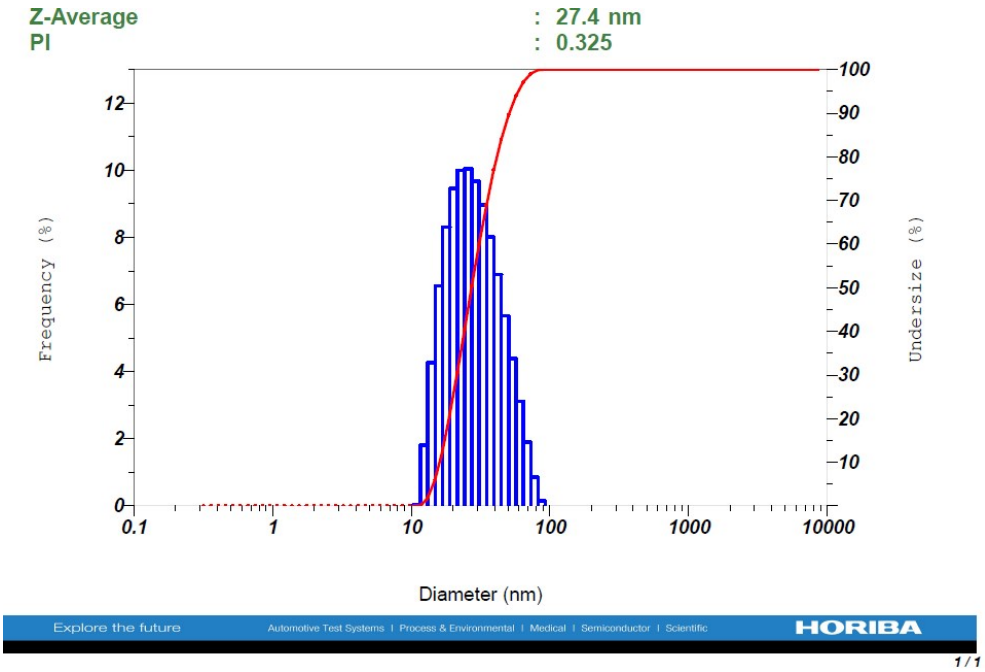

Fig S6. Size distribution of NCE-01 after 60 days of storage

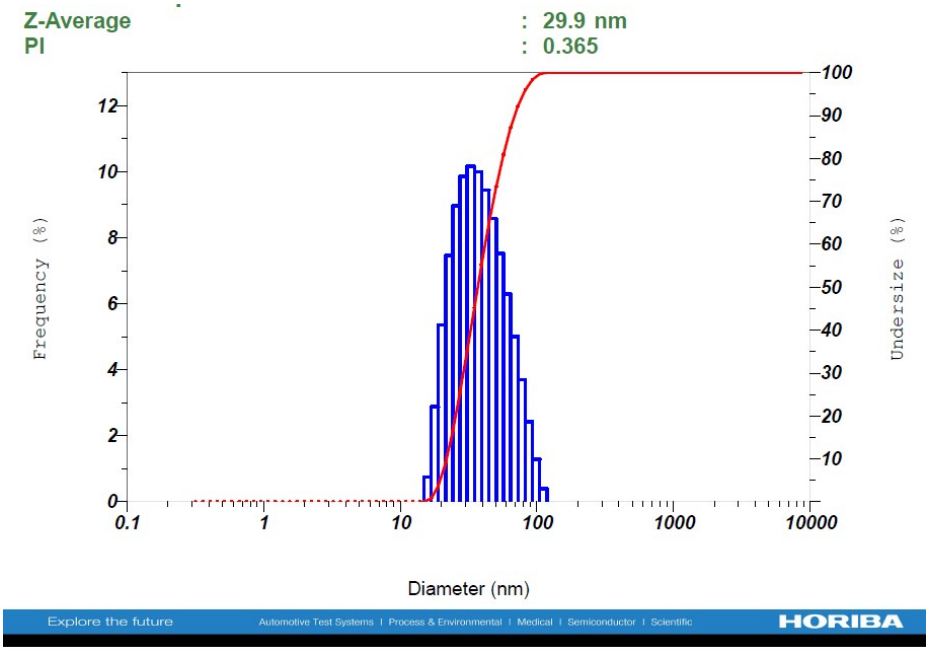

Fig S7. Size distribution of NCE-04 after 60 days of storage

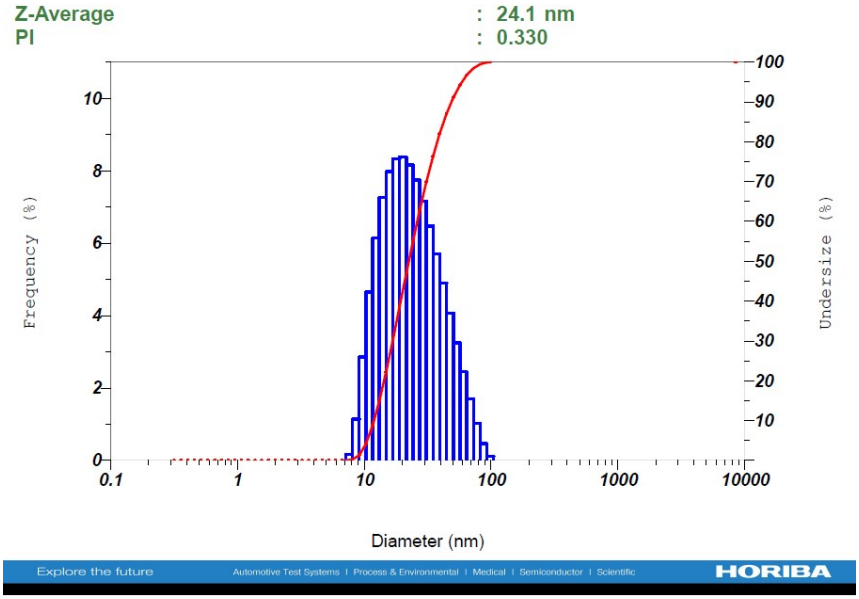

Fig S8. Size distribution of NCE-08

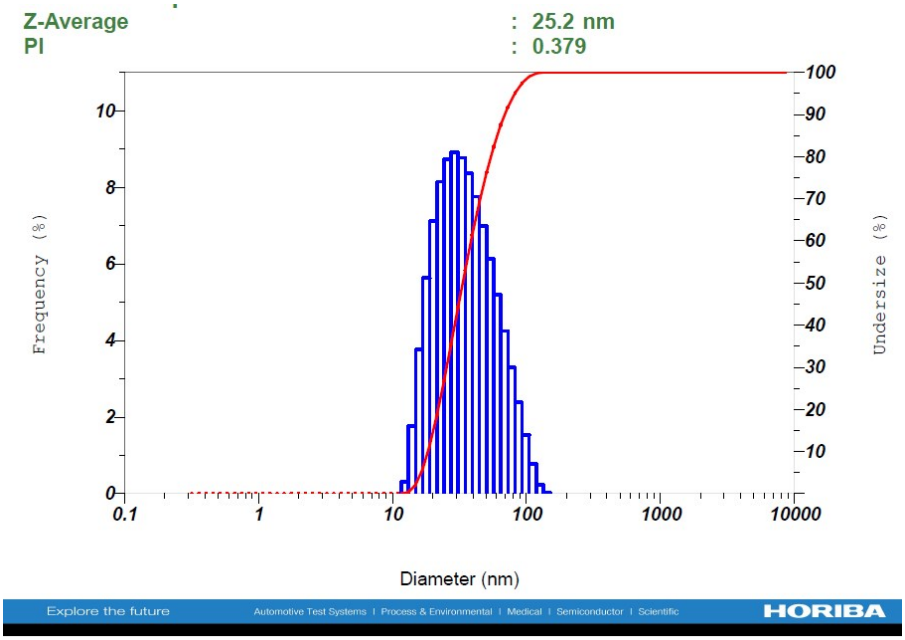

Fig S9. Size distribution of NCE-08 after 60 days of storage

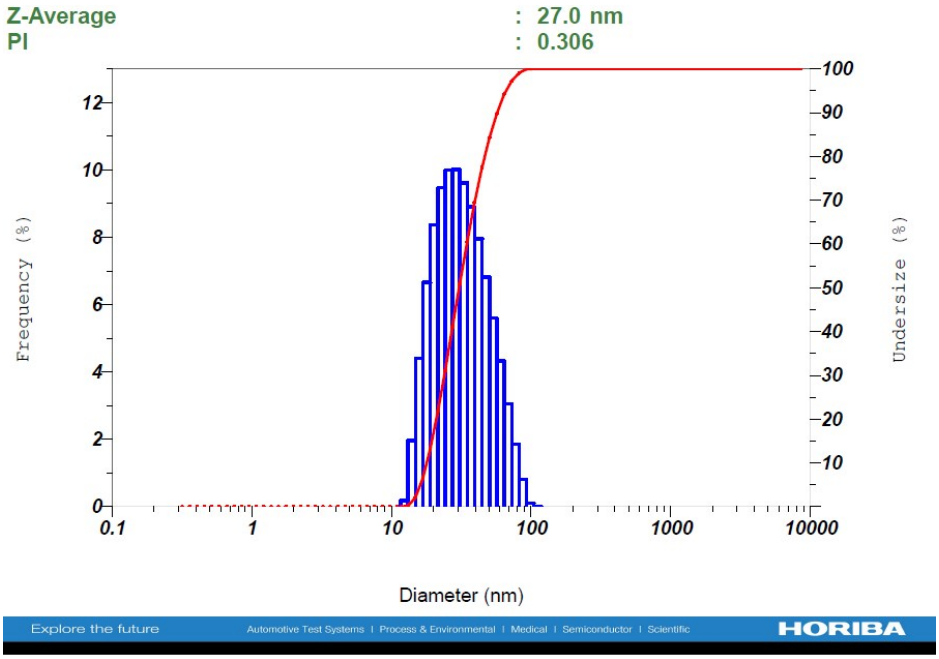

Fig S10. Size distribution of NCE-05

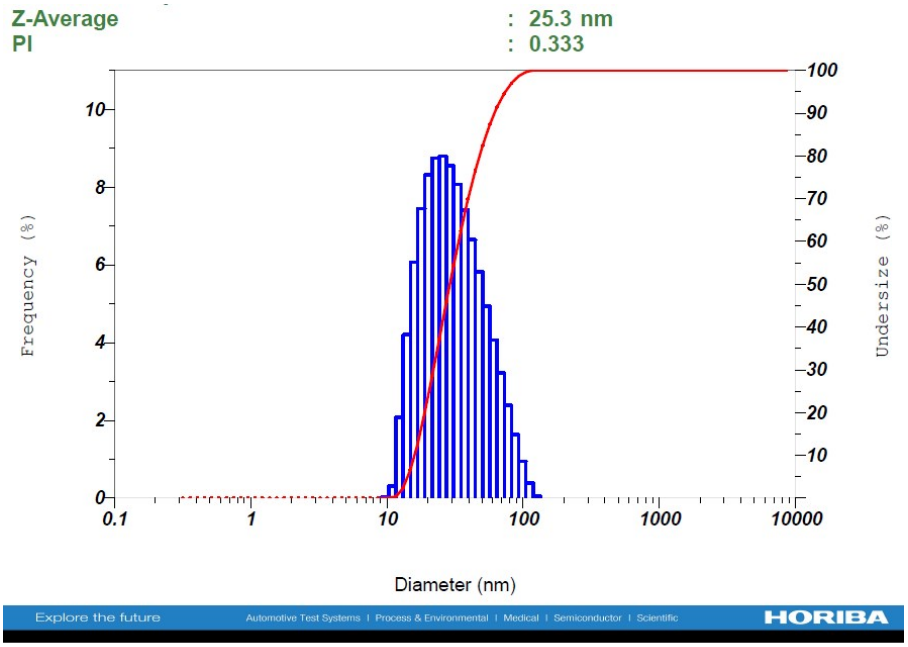

Fig S11. Size distribution of NCE-05 after 60 days of storage

HORIBA SZ-100 for Windows [Z Type] Ver2.20

HORIBA Scientific

SZ-100

Measurement Results

110-Zeta.nzt

Measurement Results

Date	:	Thursday, May 9, 2019 7:22:08 AM
Measurement Type	:	Zeta Potential
Sample Name	:	110
Temperature of the Holder	:	25.0 °C
Dispersion Medium Viscosity	:	0.896 mPa·s
Conductivity	:	0.076 mS/cm
Electrode Voltage	:	3.8 V

Calculation Results

Peak No.	Zeta Potential	Electrophoretic Mobility
1	-11.2 mV	-0.000087 cm2/Vs
2	--- mV	--- cm2/Vs
3	--- mV	--- cm2/Vs

Zeta Potential (Mean) : -11.2 mV

Electrophoretic Mobility Mean : -0.000087 cm^2/Vs

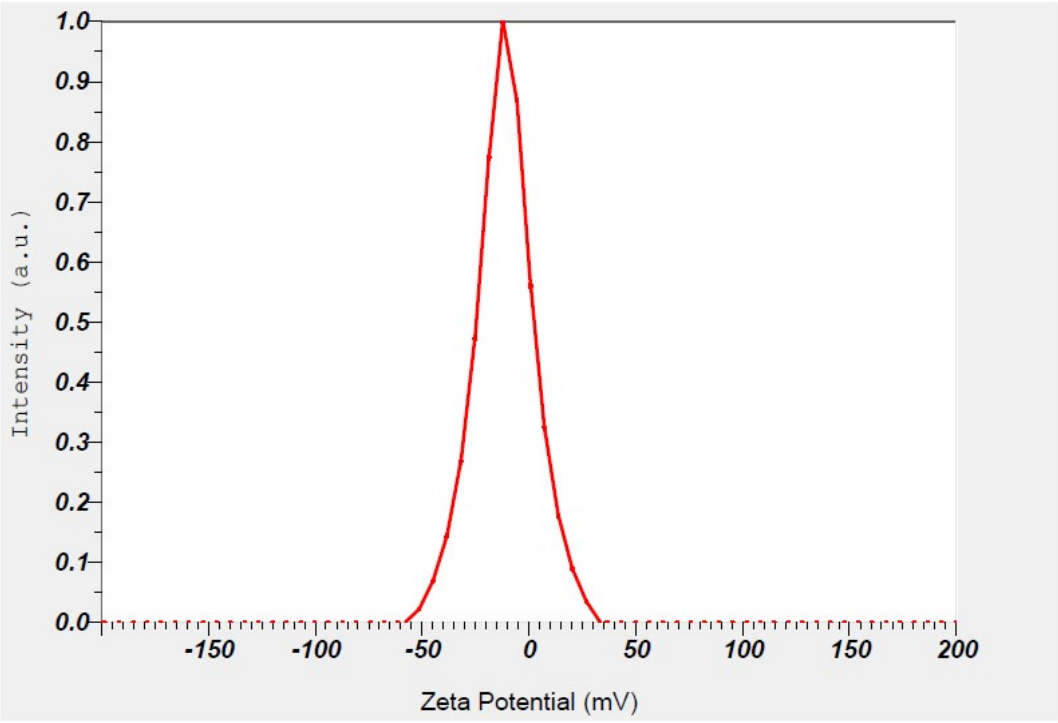

Fig S12. Zeta Potential of NCE-1

SZ-100

Measurement Results

711-Zeta.nzt

Measurement Results

Date	:	Monday, September 30, 2019 10:40:59 AM
Measurement Type	:	Zeta Potential
Sample Name	:	711
Temperature of the Holder	:	24.9 °C
Dispersion Medium Viscosity	:	0.897 mPa·s
Conductivity	:	0.297 mS/cm
Electrode Voltage	:	3.3 V

Calculation Results

Peak No.	Zeta Potential	Electrophoretic Mobility
1	-11.3 mV	-0.000088 cm2/Vs
2	--- mV	--- cm2/Vs
3	--- mV	--- cm2/Vs

Zeta Potential (Mean)	:	-11.3 mV
Electrophoretic Mobility Mean	:	-0.000088 cm^2/Vs

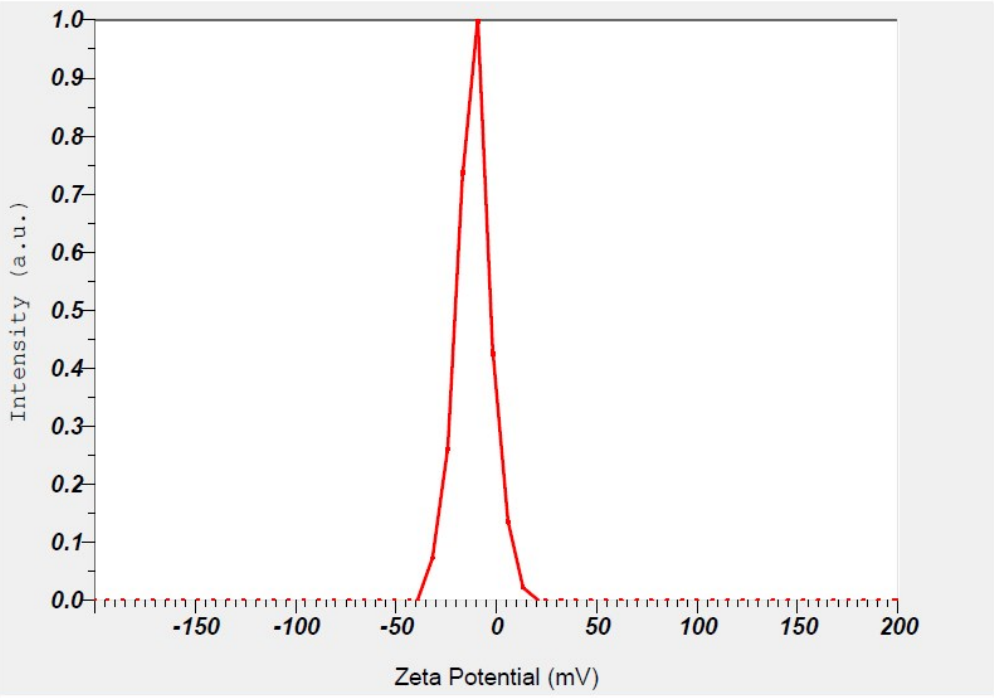

Fig S13. Zeta Potential of NCE-3

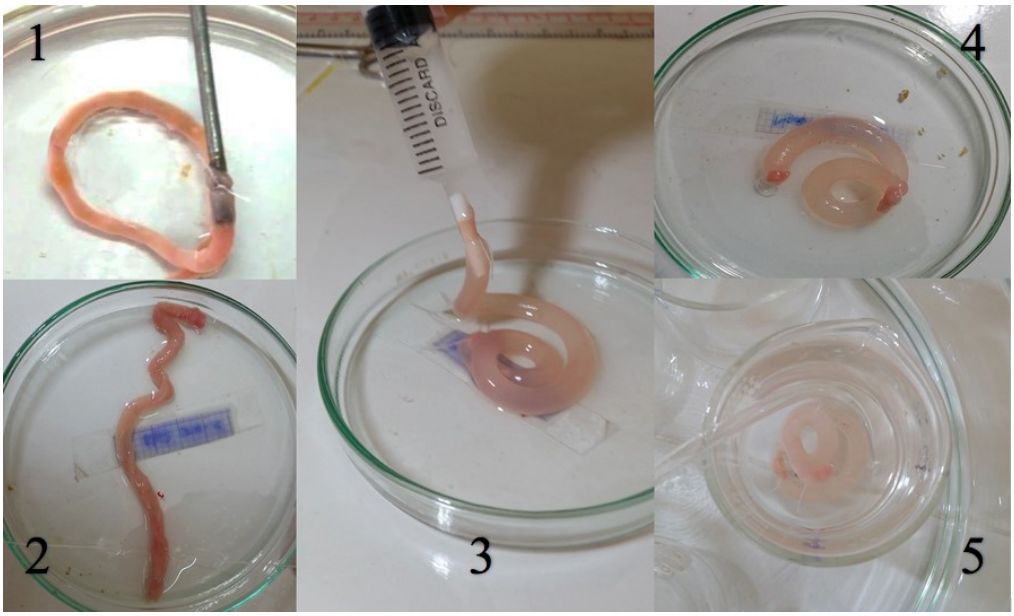

Fig S14. Preparation of Intestinal absorption test.